

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

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1. (Currently Amended) A semiconductor device comprising:
 - a semiconductor substrate having a P-type well;
 - aan N-type MOS transistor which is formed on the semiconductor substrate to
pull down a pad to a ground level and includes a first N-type diffusion region connected to
the pad;
 - a first isolation region which isolates the N-type MOS transistor from other
adjacent MOS transistors on the semiconductor substrate;
 - a second isolation region formed between the N-type MOS transistor and the
 first isolation region;
 - ~~_____ a silicide layer formed on a surface of the semiconductor substrate excluding~~
~~the first and second isolation regions;~~
 - a second N-type diffusion region which is formed in a region isolated by the
 second isolation region from the N-type MOS transistor and makes up a lateral bipolar
 transistor together with athe P-type well in the semiconductor substrate and the first N-type
diffusion region of the N-type MOS transistor; ~~and~~
 - a ~~third~~ first P-type diffusion region which is formed at a deeper position of the
 first N-type diffusion region near the second isolation region and makes up a Zener diode by
 the PN junction together with the first N-type diffusion region of the N-type MOS transistor;
 - ~~_____ a second P-type diffusion region which is isolated by a third isolation region~~
~~from the second N-type diffusion region;~~
 - ~~_____ a silicide layer formed on a surface of the semiconductor substrate excluding~~
~~the first to third isolation regions; and~~

a ground terminal which is connected to the second N-type diffusion region and the second P-type diffusion region through the silicide layer.

2. (Currently Amended) The semiconductor device as defined in claim 1, wherein the impurity concentration of the ~~third~~first P-type diffusion region is set to a value enabling a breakdown start voltage of the Zener diode to be lower than a breakdown start voltage of the N-type MOS transistor.

3-4. (Canceled)

5. (Currently Amended) The semiconductor device as defined in claim 1, further comprising:

a fourth~~third~~ N-type diffusion region which is provided between the silicide layer and the ~~third~~first P-type diffusion region and makes up a Schottky diode together with the silicide layer.

6. (Currently Amended) The semiconductor device as defined in claim 31, further comprising:

~~fourth and fifth~~a third P-type diffusion ~~regions~~region and a third N-type diffusion region formed between the silicide layer and the ~~third~~first P-type diffusion region, wherein the first and third, fourth, and fifth P-type diffusion regions and the third N-type diffusion regions~~region~~ make up a PNP bipolar transistor.

7-19. (Canceled)

20. (Currently Amended) A semiconductor device comprising:
a semiconductor substrate having a P-type well;
an N-type MOS transistor which is formed on the semiconductor substrate to pull down a pad to a ground level and includes a first N-type diffusion region connected to the pad;

E1 a first isolation region which isolates the N-type MOS transistor from other adjacent MOS transistors on the semiconductor substrate;

a second isolation region formed between the N-type MOS transistor and the first isolation region;

a second N-type diffusion region which is formed in a region isolated by the second isolation region from the N-type MOS transistor and makes up a lateral bipolar transistor together with ~~at~~ the P-type well in the semiconductor substrate and the first N-type diffusion region of the N-type MOS transistor;

a ~~third~~ first P-type diffusion region which is formed between the second isolation region and the first N-type diffusion region and near a surface of the semiconductor substrate and makes up a Zener diode by the PN junction together with the first N-type diffusion region of the N-type MOS transistor; ~~and~~

a second P-type diffusion region which is isolated by a third N-type diffusion region from the second N-type diffusion region;

a silicide layer formed on a surface of the semiconductor substrate ~~including~~ excluding the first ~~and second~~ to third isolation regions and a region connecting the first N-type diffusion region and ~~third~~ first P-type diffusion region; ~~and~~

a ground terminal which is connected to the second N-type diffusion region and the second P-type diffusion region through the silicide layer.

21. (Currently Amended) The semiconductor device as defined in claim 20, wherein the impurity concentration of the ~~third~~ first P-type diffusion region is set to a value enabling a breakdown start voltage of the Zener diode to be lower than a breakdown start voltage of the N-type MOS transistor.

22 -26. (Canceled)

E2 27. (New) The semiconductor device as defined in claim 1, further comprising:

EL a P-type MOS transistor which is formed on the semiconductor substrate to pull up the pad to a ground level and includes a third P-type diffusion region connected to the pad through a resistance;

a fourth P-type diffusion region isolated by a fourth isolation region from the third P-type diffusion region; and

a third N-type diffusion region formed lower than the fourth isolation region and between the third and fourth P-type diffusion regions,

wherein the pad is connected to the fourth P-type diffusion region and the third N-type diffusion region functions as the resistance.

28. (New) The semiconductor device as defined in claim 27 further comprising:

a fourth N-type diffusion region provided in a region surrounded by the silicide layer, third N-type diffusion region, fourth isolation region and fourth P-type diffusion region and makes up a Schottky diode together with the silicide layer,

wherein the silicide layer is formed on a surface of the fourth P-type diffusion region.